#### LOUISVILLE PURE TAP®



In 1996, Louisville Water named its drinking water Louisville pure tap® to promote the quality, reliability and value of our product. We continue this effort today with the same message. Want affordable, great-tasting, high quality drinking water? All you need a re-usable bottle.

Think about it. If you drink the

recommended eight 8-ounce servings of water each day from bottled water, that's almost 1,500 plastic bottles and \$1,500 a year! Now consider this, you can drink a year's supply of Louisville pure tap® for under 50 cents, without the plastic waste.

Louisville Water provides re-usable bottles at venues throughout the service area. We'll even send you one for free, while supplies last. Request yours by contacting Public Information.



#### **PUBLIC TOURS**

Louisville Water offers free public tours of its historical facilities. Learn how we made drinking water over 150 years ago and the advanced technology used to provide great-tasting tap water today! Receive a souvenir, a re-useable Louisville pure tap® water bottle.

#### WALKING WEDNESDAYS

Located at the Crescent Hill Gatehouse on Reservoir Avenue, just off Frankfort Avenue.

June 1 – August 31, 2012 (No tours on July 4.) Each Wednesday: 6–8pm



Step inside the Crescent Hill Gatehouse and explore the fascinating history of Louisville Water through drawings, photographs and film. A guide pro-

vides visitors with an overview. Afterwards, walk around the Reservoir, a favorite destination since 1879.

#### **TOUR THE TOWER**

Located at River Road and Zorn Avenue.

Saturday, June 2 and July 28 – 10am–Noon Tuesday, June 5 and July 31 – 6–8pm

Louisville Water's original pump station and water tower are a National Historic Landmark. Constructed in 1860 and fully renovated in 2010, this facility has survived tor-

nados, flooding and World War II. The tour takes you to the early days of operation and shows you how we turn Ohio River water into Louisville pure tap<sup>®</sup>.



# SPECIAL TOUR EVENT: TOUR THE TOWER AND CRESCENT HILL GATEHOUSE

Saturday, September 22 – 10am-2pm

Now you can follow the water from the Ohio River to the Crescent Hill Filtration Plant all in one tour. Please join us for this special event! Contact Public Information two days in advance for groups of 10 or more or if wheelchair accessibility is needed. Note: Lightning will cancel tours.

### THE SOURCE

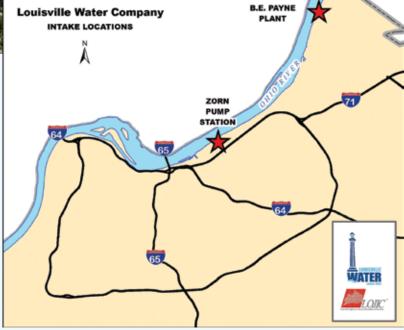
Louisville Water Company (LWC) is the public water supplier of Louisville Metro and parts of Bullitt and Oldham Counties. The Ohio River is the source for your drinking water. LWC operates two surface water treatment plants with intakes on the Ohio River. In October 2003, the Kentucky Division of Water approved a Source Water Assessment



and Protection Plan for Jefferson County. The plan looks at LWC's susceptibility to potential sources of contamination. The plan identified spills of hazardous materials on the Ohio River and permitted discharges of sanitary sewers as the highest contamination risks. In Jefferson County, land use in the protection area is primarily zoned for residential and commercial use, with only a few industrial sites. In Oldham and Trimble Counties (areas bordering the Ohio River to the north of our intakes) land use is primarily zoned for residential and agricultural use. Therefore, source water contamination risks are relatively low. LWC maintains an Emergency Preparedness and Disaster Services Plan to

address potential contamination risks. To view the Source Water Assessment and Protection Plan contact Jim Smith at 502.569.3687.

LWC also draws water through the aquifer with riverbank filtration wells at the B.E. Payne Water Treatment Plant. Therefore, protecting the water deep in the ground is important. The Kentucky Division of Water approved LWC's Wellhead Protection Plan (WHPP) in 2004. The goal is to safeguard groundwater feeding into the wells from contamination within the Wellhead Protection Area (WHPA) in Prospect. LWC continually updates the plan. New residents and businesses in the WHPA receive information about the WHPP and educational materials. The information is also available at Louisville Water.com.



View this report online at LouisvilleWater.com.

## QUESTIONS ABOUT THIS REPORT?

Contact Kelley Dearing Smith, Public Information Officer, by phone at 502.569.3695 or send an email to ksmith@lwcky.com.

## **CUSTOMER INPUT**

Our Customer Advisory Council meets bimonthly. The Board of Water Works meets monthly. For meeting dates and times, contact Kelley Dearing Smith by phone at 502.569.3695 or send an email to ksmith@lwcky.com.

# PUBLIC INFORMATION

Louisville Water provides free tours, education programs and guest speakers. For more information email publicinfo@lwcky.com or call 502.569.3600.

# ACCOUNT SERVICES

Access your account online at LouisvilleWater.com and by phone at 502.583.6610 or toll free at 888.535.6262.To speak with a Customer Care Representative, please call during business hours, Monday-Friday, 8am - 7pm.

# WALK-IN CUSTOMER SERVICE

Monday—Friday, 8am – 5pm.

Corporate Headquarters Bullitt County Office 550 South Third Street 3396 Burkland Boulevard Louisville, KY 40202 Shepherdsville, KY 40165



Download our free mobile application from louisvilleky.gov/mobile apps.

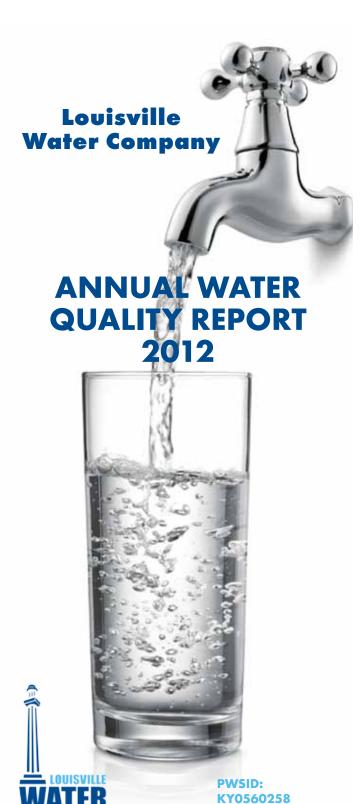


Find us on Facebook at LouisvilleWater and at Louisvillepuretap.



Follow us on Twitter at LouisvilleWater and at Louisvillepuretap





LouisvilleWater.com

# **QUALITY WATER, EXCEEDING STANDARDS**

Louisville Water Company's Annual Water Quality Report informs you about your drinking water—Louisville pure tap<sup>®</sup>. Louisville Water prepares this report to meet Environmental Protection Agency (EPA) requirements under the Safe Drinking Water Act Amendment. Scientists in our EPA-certified laboratory conduct over 200 tests a day to ensure Louisville pure tap<sup>®</sup> is safe and high quality. It's important for you to know that your drinking water meets and surpasses the EPA's strict health standards.

Louisville Water provides Louisville pure tap® to over 850,000 people in Louisville Metro and parts of Bullitt, Nelson, Oldham, Shelby and Spencer counties every day.

Louisville Water has two treatment plants drawing from the Ohio River: B.E. Payne Water Treatment Plant supplies up to 60 million gallons and Crescent Hill Filtration Plant up to 180 million gallons of Louisville pure tap<sup>®</sup>.

# B.E. PAYNE WATER TREATMENT PLANT



Louisville Water is the first utility in the world to combine a tunnel and collector-well system to draw Ohio River water through the river-

bank. It's a green approach to water filtration, using the sand and gravel in the earth as a natural filter. This innovative water intake process was added to the B.E. Payne Water Treatment Plant in 2010 and was named the "best civil engineering project in the world" by the American Society of Civil Engineers.

# CRESCENT HILL FILTRATION PLANT

Renovation to modernize our 102-year old Crescent Hill Filtration Plant continues. Since this plant serves 80 percent of our customers, the work is done in stages as not to disrupt operations. The project includes upgrading the



rapid sand filters, installation of a filter cleaning system and water storage tank, renovation of the softening basins and installation of a chlorine genera-

tion facility, extending the life of this historic plant for decades. The project began in 2009 and should be completed in 2013.

## QUALITY CUSTOMER CARE

Louisville Water maintains over 24,000 public fire hydrants. Homeowners insurance discounts may be offered if your home is within 1,000 feet of a fire hydrant.

Louisville Water maintains an "A+" rating with the Better Business Bureau, the highest grade the BBB assigns.

In addition to meeting EPA standards for safe drinking water, Louisville Water has its own set of strict standards to ensure Louisville pure tap® looks and tastes good too.

Louisville Water has a Customer Assistance Program to help customers who have difficulty paying their bill. We fund this program with a portion of revenues from our water-line protection programs. Three organizations administer the program: Association of Community Ministries in Jefferson County, American Red Cross in Oldham County and Shepherd's Shelter in Bullitt County.



For more interesting facts about Louisville Water and Louisville pure tap®, check out our new online resources.

Regulated Contaminants - Substances subjected to a Maximum Contaminant Level (MCL), Action Level (AL) or Treatment Technique (TT). These standards protect drinking water by limiting the amount of certain substances that can adversely affect public health.

REGULATED SUP	STANCES - TREATMENT PLANTS	3		, ,,	, ,		1 ( )	•		7 2 1
112002/1125 002	Water Quality Data 2011	-		Crescent Hill Filter Plan	it (CHFP)	B. E. Payn	e Water Treatment Plant	(BEP)		
Substance (units)	MCL	MCLG	CHFP	Highest	Range of	BEP	Highest	Range of	Compliance	Typical Source of Contamination
			Average	Level Detected	Detections	Average	Level Detected	Detections	Achieved	(for more details, visit www.epa.gov/safewater/hfacts.html)
INORGANIC										
Fluoride (ppm)	4	4	0.96	1.08	0.82 - 1.08	0.99	1.19	0.76 - 1.19	YES	Additive that promotes strong teeth. Fertilizer & aluminum factories. Erosion of natural deposits.
Nickel (ppb)	* n/a	n/a	2.3	2.3	one measurement	1.9	1.9	one measurement	YES	Runoff from landfills & cropland. Metal refineries & factories. Erosion of natural deposits.
Nitrate (ppm)	10	10	1.2	1.3	1.0 - 1.3	0.4	0.9	0.1 - 0.9	YES	Runoff from fertilizer & leaching from septic tanks. Erosion of natural deposits.
Turbidity (NTU)	TT $100\% \le 1.0$ and $95\% \le 0.3$	n/a	0.05	$0.22 (100\% \le 0.3)$	BDL - 0.22	0.05	$0.12 (100\% \le 0.3)$	BDL - 0.12	YES	Soil runoff.
* The MCL for Nick	cel was remanded by LISEPA in Febr	ruary 1995								

\* The MCL for Nickel was remanded by USEPA in February 1995.

**ORGANIC** 

Total Organic Carbon				Lowest RAA Removal			Lowest RAA Removal			
(Removal Ratio)	$TT (\ge 1.00)$	n/a	1.43	Ratio 1.41	0.76 - 1.90	1.39	Ratio 1.13	1.00 - 2.13	YES	Naturally present in the environment.

Total Organic Carbon (TOC) occurs in source waters from natural substances such as decayed leaves and animal wastes. It can combine with chlorine used in disinfection byproducts. TOC is measured in parts per million (ppm) but compliance with the treatment technique (TT) is based on a running annual average (RAA) of the monthly ratios of the percent TOC treatment removal compared to the required removal. A minimum annual average ratio of 1.00 is required. In 2011, Louisville Water Company (LWC) met the TOC treatment technique requirement.

RADIONUCLIDES										
Uranium (µg/L)	30	0	0.12	0.12	one measurement	0.18	0.18	one measurement	YES	Erosion of natural deposits.
Alpha Emitters (pCi/L)	15	0	-0.70	-0.70	one measurement	-0.25	-0.25	one measurement	YES	Erosion of natural deposits.
Combined Radium (pCi/L)										
(measured as Radium-226 & -228)	5	0	0.94	0.94	one measurement	0.39	0.39	one measurement	YES	Erosion of natural deposits.

REGULATED SUBSTANCES - DIST	TRIBUTION SYSTEM						
Substance (units)	MCL	MCLG	Annual Average	Highest Level Detected	Range of Detections	Compliance Achieved	Typical Source of Contamination (for more details, visit www.epa.gov/safewater/hfacts.html)
Total Trihalomethanes (ppb)	80	n/a	26.6 (RAA)	28.8 (RAA)	11.6 - 41.8	YES	Byproduct of drinking water disinfection.
Haloacetic Acids (ppb)	60	n/a	16.7 (RAA)	19.0 (RAA)	5.0 - 39.0	YES	Byproduct of drinking water disinfection.
Chloramines (ppm)	MRDL = 4	MRDLG = 4	2.7 (RAA)	2.7 (RAA)	0.7 - 3.3	YES	Water additive used to control microbes.
Total Coliform Bacteria (% positive)	≤ 5% positive samples/month	0	0.03%	0.36%	0 - 0.36%	YES	Naturally present in the environment.

<b>REGULATED SUBSTANCES - AT</b>	CUSTOMER'S TAP							
Substance (units)	AL	MCLG	Highest Single Result	# Results Exceeding AL	90th Percentile	Range of Detections	Compliance Achieved	Typical Source of Contamination (for more details, visit www.epa.gov/safewater/hfacts.html)
Copper (ppm)	$AL 90\% \le 1.3$	1.3	0.53	0	0.24	BDL - 0.53	YES	Corrosion of household plumbing systems. Erosion of natural deposits.
Lead (ppb)	AL 90% ≤ 15	0	29.0	5	12.0	BDL - 29.0	YES	Corrosion of household plumbing systems. Erosion of natural deposits.

Lead and copper results are from 2011 and the most recent required testing done in accordance with the regulation. All samples were taken at customer's taps meeting lead and copper plumbing and water holding time criteria. 52 sites were tested, five (5) samples exceeded the Action Level for lead; zero (0) exceeded the Action Level for copper.

Cryptosporidium: LWC monitors the Ohio River for Cryptosporidium, a tiny intestinal parasite often found in surface waters. Cryptosporidium can cause flu-like symptoms if ingested. In 2011, LWC analyzed 26 Ohio River samples.

We detected low levels of Cryptosporidium in six samples with levels ranging from 0 oocysts/L to 0.200 oocysts/L. These detections were within ranges typically measured in the Ohio River. LWC optimizes its treatment processes to help ensure removal.

#### **ENHANCING WATER TREATMENT**

The Kentucky Division of Water has allowed Louisville Water a one year extension to fully implement the Long Term 2 Surface Water Treatment Rule (LT2) for the Crescent Hill Filtration Plant. This new water quality regulation required Louisville Water to add two additional treatment barriers. The company chose to do three based on our history of exceeding regulations. Louisville Water is currently utilizing two treatment barriers, which meets the LT2 requirements. The extension allows time to complete the third treatment barrier. Louisville Water will provide monthly monitoring data and quarterly project updates to the Kentucky Division of Water.

#### WATER QUALITY DISCOVERIES

Louisville Water scientists identified a practical approach to reduce chromium 6 (Cr6) in drinking water. Chromium is naturally occurring and exists in two forms: chromium 3 is important for balanced health, while chromium 6 can be carcinogenic if inhaled. The EPA regulates Total Chromium levels and Louisville's drinking water is 90% below that level. As the EPA conducts research to determine if it will create a drinking water standard for Cr6, our scientists discovered a modification to the treatment process that reduces Cr6 levels to below 0.1 parts per billion (ppb). Louisville pure tap® meets and surpasses all EPA drinking water regulations.

## **MESSAGE FROM THE EPA**

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 800.426.4791.

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and may pick up substances resulting from the presence of animals or from human activity. Contaminants that may be present in source water include:

- Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife;
- Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming;
- Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses;
- Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems; and

 Radioactive contaminants, which can be naturallyoccurring or be the result of oil and gas production and mining activities.

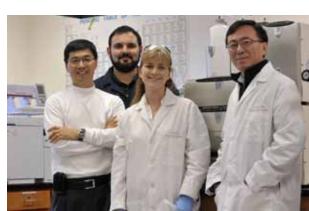
Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA and Center for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline at 800.426.4791.

# INFORMATION ABOUT LEAD

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Your local public water system is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline at 800.426.4791 or at http://www.epa.gov/safewater/lead.

## PREVENTING TOOTH DECAY

Louisville Water is one of the first public water utilities to fluoridate the drinking water supply to prevent tooth decay. According to the EPA and the US Department of Health and Human Services, the goal of fluoride treatment is to add enough fluoride to prevent tooth decay while avoiding the unwanted health effects from too much fluoride. The Kentucky State Health Department requires all public water suppliers serving more than 1,500 people to fluoridate drinking water at a level of one part per million (ppm).



Louisville Water's scientists conduct over 200 water quality tests a day.

# ADDITIONAL WATER QUALITY DATA

Alkalinity (as CaCO3) - 71 mg/L
pH - 8.2 Standard Units (SU)
Calcium (as Ca) - 52 mg/L
Magnesium (as Mg) - 6 mg/L
Sodium (as Na) - 26 mg/L
Sulfate - 46 mg/L
Bicarbonate (as CaCO3) - 65 mg/L
Chloride - 40 mg/L
Hardness (as CaCO3) - 149 mg/L
(8.7 grains/gallon)
Data is an average of Crescent Hill Filtration Plant and B.E. Payne Water Treatment Plant.

Spanish (Español): Este informe contiene información muy importante sobre la calidad de su agua beber. Tradúzcalo o hable con alguien que lo entienda bien. (This pamphlet contains important information about your drinking water. Please have this information translated.)

# TABLE DEFINITIONS

**AL:** Action Level. The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

**BDL:** Below Detection Levels. Laboratory analysis indicates that the contaminant is not present.

**MCL:** Maximum Contaminant Level. The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

**MCLG:** Maximum Contaminant Level Goal. The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

mg/L: Milligrams per liter or parts per million, ppm.

**MRDL:** Maximum Residual Disinfectant Level. The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

**MRDLG:** Maximum Residual Disinfectant Level Goal. The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

n/a: Not applicable. Does not apply.

**ng/L:** Nanograms per liter or parts per trillion, PPT

**NTU:** Nephelometric Turbidity Unit. A measure of the clearness or clarity of water. Turbidity is monitored because it is a good indicator of the effectiveness of the filtration system.

**pCi/L:** Picocuries per liter. A measure of the radioactivity in water.

 $\boldsymbol{ppb:}$  Parts per billion or micrograms per liter,  $\mu g/L.$ 

ppm: Parts per million or milligrams per liter, mg/L.

ppt: Parts per trillion or nanograms per liter, ng/L.

**RAA:** Running Annual Average.

TOC: Total Organic Carbon.

**TT:** Treatment Technique. A required process intended to reduce the level of a contaminant in drinking water.

**μg/L:** Micrograms per liter or parts per billion, ppb.